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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,189	07/24/2003	Chia-hung Chen	5852	1546

7590  
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David L. Hedden  
ASHLAND INC.  
P.O. Box 2219  
Columbus, OH 43216

EXAMINER

RONESI, VICKEY M

ART UNIT PAPER NUMBER

1714

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/626,189	CHEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Vickey Ronesi	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/24/03</u> . | 6) <input checked="" type="checkbox"/> Other: <u>Renumbered claims.</u>                 |

## **DETAILED ACTION**

### ***Specification***

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The subject matter disclosed in present claims 2, 4, 11, and 15 is not supported by the specification (see paragraph 4 of this office action).

### ***Claim Objections***

2. The numbering of claims is not in accordance with 37 CFR 1.126. Misnumbered claims 12-15 (the last four claims presently listed) have been renumbered as claims 13-16, respectively. For examiner purposes, it is noted that claims 13 and 15 have been taken to be both dependent on claim 12.

In the rejections that follow, please note that the claims referred to are the renumbered claims. A revised version of the claims is attached to this office action.

3. Claim 10 is objected to because “claim” on line 14 should read as the plural “claims.”

Claim 16 is objected to because “a round” on line 19 should read as “around.”

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 4, 11, and 15 (as renumbered per discussion in paragraph 3) are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claim 2, while there is support in the present specification for “aromatic solvents” and “polar solvent” (page 7, lines 6-23), there is no support for the presently claimed “hydrocarbon solvents” and “ester solvents.”

With respect to claim 4, while there is support in the present specification for “bisphenol A” and “bisphenol F” (page 3, line 3), there is no support for the presently claimed generic “bisphenol.”

With respect to claim 11, there is found no support either explicitly or by incorporating a reference in the present specification regarding removing a foundry shape from a pattern as presently claimed.

With respect to claim 15, there is found no support either explicitly or by incorporating a reference in the present specification regarding a process of casting metal.

5. Claims 4, 9, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the phenolic resole resin" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim. It is noted that that applicant recites in claim 1 only a "phenolic resole resin composition" and "a phenolic resin," not "a phenolic resole resin."

Claim 9 recites the limitation "the phenolic resole resin" in lines 1-2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the phenolic resole resin" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-16 (as renumbered per discussion in paragraph 3) are rejected under 35 U.S.C. 102(b) as being anticipated by Skoglund (US 6,288,139, cited on IDS dated 7/24/2003).

Skoglund discloses a polyurethane-forming foundry binder system (col. 9, line 55 to col. 10, line 33) comprising the presently claimed phenolic resin (col. 2, line 25 to col. 3, line 19); 0.1-1.5 wt % of the presently claimed ortho ester (col. 4, lines 12-23); 20-80 wt % of the presently claimed solvent (col. 3, lines 9-19; col. 3, line 52 to col. 4, line 11); and a polyisocyanate (col. 3, lines 21-49). A foundry mix (col. 10, lines 34-38) is also disclosed which comprises an effective bonding amount of said polyurethane-forming foundry binder system and

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a major amount of aggregate (col. 5, lines 32-55). Furthermore, a process of preparing a foundry shape and casting metal are disclosed on col. 10, lines 39-63.

Although applicant has discussed Skoglund on page 2 of the present specification, it is noted that open claim language "comprising" allows for the addition of other ingredients.

Therefore, a polyisocyanate is not excluded from present claim 1, and it is clear that Skoglund anticipates the present invention.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Mizutani et al (JP 58-109534).

Pending a full English-language translation, the JPO abstract has been relied upon in the following rejection.

Mizutani et al discloses a curable composition suitable for use in molding and casting materials comprising a bicyclo orthoester compound and a curing agent such as a phenolic resin (abstract).

In light of the above, it is clear that Mizutani et al anticipates the presently cited claim.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-16 (as renumbered per discussion in paragraph 3) are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 and 11-16 of U.S. Patent No. 6,288,139. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons given below.

With respect to the stabilized phenolic resole resin composition of present claims 1-9, claims 1-8 of US '139 disclose a mixture of phenolic resin, an ortho ester, and a solvent. It is noted that since present claim 1 recites open claim language "comprising," it is therefore open to other ingredients such as the organic polyisocyanate in claim 1 of US '139.

With respect to foundry binder system of present claim 10, claims 1-8 of US '139 disclose a foundry binder system comprising a phenolic resin, an ortho ester, a solvent, and an organic polyisocyanate.

With respect to the foundry mix of present claim 11, claim 11 of US '139 discloses a foundry mix comprising a binder system and a major amount of an aggregate.

With respect to the processes of present claims 12-16, claims 12-16 of US '139 disclose processes utilizing the binder system.

9. Claims 1-16 (as renumbered per discussion in paragraph 3) are directed to an invention not patentably distinct from claims 1-8 and 11-16 of commonly assigned U.S. Patent No. 6,288,139. Specifically, see the discussion set forth in paragraph 8 above.

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The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302).

Commonly assigned U.S. Patent No. 6,288,139, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter. It is mandatory that applicant submit a statement such as, "Application X and Application Y were, at the time the invention of Application X was made, owned by Company Z." See MPEP § 706.02(l)(2), page 700-55 of revised MPEP dated May 2004.

### ***Conclusion***

10. Applicant is advised that should the claims be amended using "consisting essentially of" to characterize the composition, it should be noted that "if an applicant contends that additional steps or materials in the prior art are excluded by the recitation of 'consisting essentially of,' applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention." See MPEP § 2111.03.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Henry (US 4,814,363) and Chen et al (US 6,017,978) both disclose phenolic resin



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compositions, however, neither one teaches or suggests the use of a stabilizer, let alone an ortho ester as a stabilizer.

*Correspondence*

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 5, 2005

vr



  
VASU JAGANNATHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700